NATURAL HISTORY MISCELLANEA

Published by

The Chicago Academy of Sciences

Lincoln Park-2001 N. Clark St., Chicago 14, Illinois, U.S.A.

No. 161 **December 30, 1957**

A Second List of New Herpetological Records for Missouri

Paul Anderson*

In the course of gathering material for a general account of the herpetology of Missouri, a number of new records for the state have come to hand. Some of these have been reported (Anderson, 1945) . Since completion of the longer publication may be still further delayed, it seems now desirable to place on record six species and subspecies of amphibians and reptiles (one salamander, three turtles and two snakes) not previously recorded from Missouri.

***Eurycea tynerensis* Moore and Hughes. Oklahoma Salamander.**

On April 8, 1957, I collected a single specimen of this neotenic salamander in an intermittent spring-fed stream approximately 2 miles northwest of Noel, McDonald County. Heretofore this salamander has been recorded only from the Ozark uplift in northeastern Oklahoma. The Missouri record represents a range extension of approximately 40 miles to the northeast of the nearest Oklahoma record that has come to my attention (Dundee, 1947).

The specimen (PA 7185 in my preserved collection) is a female measuring 56.5 mm. in total length and 23 mm. in tail length. There are 19 costal grooves. An incision made in the abdomen reveals unpigmented ovarian eggs apparently ready to be deposited. To prevent further mutilation of the specimen the total number of eggs has not been determined. A few removed for measurement are 2 mm. in diameter. I have had for direct comparison three preserved specimens of *tynerensis* from Cherokee County, Oklahoma (PA 5101-3) and the Missouri specimen agrees with color notes I made on the Oklahoma live material.

*604 W. College, Independence, Missouri.

***Kinosternon flavescens flavescens* Agassiz. Yellow Mud Turtle.**

Discovery of the yellow mud turtle in southwest Missouri was anticipated in view of its known occurrence in an adjacent county in Kansas (Cherokee County, Smith, 1950) . The search for it in Missouri remained unsuccessful until June 1, 1949, when I collected one in an overflow pool of the Spring River near Waco, Jasper County. This turtle (PA 6110) is a male with a carapace length of 115 mm. The gular plate is 39 per cent of the length of the anterior lobe of the plastron, thus agreeing with the nominate form and the coloration is typical.

***Kinosternon flavescens spooneri* Smith. Illinois Mud Turtle.**

This turtle, an apparent relict population that through isolation has differentiated from the typical subspecies, has heretofore been reported only from the sand prairie region along the Illinois River and the Oquawka sand areas in Illinois and an area in southeastern Iowa.

On April 28, 1950 I found a turtle of this subspecies partly buried in mud and leaves in a shallow pool near the Mississippi River and a short distance from Canton, Lewis County, Missouri. It is a female (PA 6458) measuring 120 mm. in carapace length, the gular plate is 54.2 per cent of the length of the anterior plastral lobe. Subsequent collecting in the area has produced two additional specimens, caught August 3, 1956 at the same locality. These are juveniles. PA 6985 measures 35 mm. in carapace length and the gular plate is 45.5 per cent of the length of the anterior lobe of the plastron. PA 6986 has a carapace length of 46 mm. and the gular plate is 43.8 per cent of the anterior plastral lobe. The three have the darker color of the soft parts and reduced amount of yellow characteristic of *spooneri.*

This Lewis County locality is about 60 miles west-northwest of the nearest Illinois River record and about the same distance southwest of the Oquawka record. The site is an area of alluvial Wabash silt loam which varies from a sandy-textured soil to one with a high percentage of organic matter (Miller and Krusekopf, 1929) . Possibly the known populations are not as discontinuous as previously indicated. The Mississippi River could provide a connecting link for all the, known populations of *spooneri,* provided that habitat it affords is suitable.

It is not anticipated that the gap of approximately 250 miles between the known ranges of *K. f. flavescens* and *K. f. spooneri* will be much

reduced, but Smith (1951) has presented reasons for according them subspecific rank.

***Deirochelys reticularia miaria* Schwartz. Western Chicken Turtle.**

In anticipation of a visit from me, Virgil Owens kept a turtle even though it had been struck by a car, damaging the carapace. Thus, fortuitously, another subspecies of turtle was added to the state list. The turtle (PA 7003) was collected on April 11, 1957, 2/ miles northeast of Portageville, New Madrid County, Missouri. It is a female with a carapace length of 118 mm. The plastral pattern of subadults is quite pronounced. On a return visit to the Southeast Missouri Lowland Area in July, 1957, an additional chicken turtle was observed sunning on a log in a small pond, only a short distance from the site of collection of the earlier record. Attempts to capture it by seining were hampered by the extremely soft mud bottom and were unavailing. It had been thought that the turtle fauna of the Lowland Area was fairly well known, though the occurrence of the chicken turtle in the northern extremity of the Mississippi embayment was considered a definite possibility. The present record is a northward range extension of approximately 65 miles.

***Cemophora coccinea* Blumenbach. Scarlet Snake.**

Over 20 years ago, inconclusive evidence led me to believe that the scarlet snake occurred in the Southeast Missouri Lowland. At that time I saw a live specimen said to have been caught at Kennett, Dunklin County. The owner mistakenly thought it was a coral snake and could not be persuaded to part with it. No additional specimens from the Lowland Area have yet come to light but its occurrence there is entirely reasonable, in view of a specimen from $3Y_2$ miles southwest of Paragould, Greene County, Arkansas, in the University of Michigan Museum .of Zoology (Parker, 1947) . More definite evidence of the occurrence of the scarlet snake in Missouri came from the Ozark area. Edward Lace, a reliable amateur then of the Chicago Herpetologists Club, discovered one dead on the road near Rolla, Phelps County on July 16, 1942. It is currently no. 11239 in the collection of the Chicago Academy of Sciences and I am indebted to Dr. Howard K. Gloyd for permission to examine the specimen and report on it. This snake has 19 dorsal scale rows, 149 ventrals, 40 caudals, 6 supralabials and 6-7 infralabials. The total length is 297 mm. and tail length 47 mm. There are 19 preanal red crossbands bordered by narrow black bands and

separated by yellow. There are about 6 triads on the tail.

Whether the Missouri population is isolated as that in Illinois (Bennett, 1953) , Indiana and Kentucky appear to be, or whether it is connected with the main population in Arkansas remains to be demonstrated. Additional Missouri material is much desired.

***Natrix septemvittata* Say. Queen Snake.**

The occurrence of this snake in Missouri came as a complete surp[r] ise. Many herpetologists, myself included, thought the range of this snake was an area to the east of the Mississippi River. An early Arkansas record, generally considered unacceptable, has now been substantiated by the collection of additional material in recent years. The species has also been reported from Oklahoma (Force, 1925) . Roger Conant will discuss these records in a forthcoming paper on *Natrix.* I am indebted to him for calling to my attention three specimens from Stone County, Missouri, in the American Museum of Natural History. These were collected by the late G. Kingsley Noble in 1927, but were never reported in the literature. Mr. Conant also very generously supplied me with the following data : AMNH 46801—a male, has 148 ventrals, 67 caudals and measures 655 mm. in total length, 148 mm. tail length. AMNH 46802—a female, has 142 ventrals, 41+ caudals, and measures 373+ mm. total length, 64+ mm. tail length. AMNH 46803—a female, has 143 ventrals and 76 caudals and measures 363 mm. total length and 91 mm. tail length. All have a dorsal scale formula of 19-17, 7 supralabials and 9 to 10 infralabials. No. 46801 has the striped ventral pattern evident only under the chin and throat. The rest of the ventral surface is mottled with yellow and brown, becoming plain brown posteriorly. In 46802, the ventral pattern is fairly well defined on the anterior two-thirds. No. 46803 has a venter similar to that of 46801.

Literature Cited

Anderson, Paul

1945 *New* herpetological records for Missouri. Bull. Chicago Acad. Sci., vol. 7, no. 5, p. 271-275.

Bennett, Esther

1953 An Illinois record of the scarlet snake. Herpetologica, vol. 9, p. 164.

Dundee, Harold A.

1947 Notes on salamanders. Copeia no. 2, p. 117-120.

Force, Edith R.

1925 Notes on reptiles and amphibians of Okmulgee County, Oklahoma. Copeia no. 141, p. 25-27.

Miller, M. F. and Krusekopf, H. H.

1929 The soils of Missouri. Univ. Mo. Coll. Agri. Bull. 264, p. 1-120.

Parker, Malcolm V.

1947 Notes on the herpetology of Clay and Greene Counties, Arkansas. Proc. Ark. Acad. Sci., vol. 2, p. 15-30.

Schwartz, Alfred

1956 Geographic variation in the chicken turtle, Deirochelys reticularia Latreille. Fieldiana, Zool., vol. 34, no. 41, p. 461-503.

Smith, Hobart M.

1950 Handbook of the amphibians and reptiles of Kansas.

Univ. Kans. Mus. Nat. Hist. Misc. Publ. 2, p. 1-333, 233 fig.

Smith, Philip W.

1951 A new frog and a new turtle from the western Illinois Sand Prairies. Bull. Chicago Acad. Sci., vol. 9, no. 10, p. 189-199, pl. 1-2.

Natural History Miscellanea, a series of miscellaneous papers more or less technical in nature, was initiated by The Chicago Academy of Sciences in 194-6 as an outlet for short, original articles in any field of natural history. It is edited by the Director of the Academy with assistance from the Scientific Governors' Committee on Publications and other qualified specialists. Individual issues, published at irregular intervals, are numbered separately and represent only one field of specialization ; e.g., botany, geology, entomology, herpetology, etc. The series is distributed to libraries and scientific organizations with which the Academy maintains exchanges. Title pages and indexes are supplied to these institutions when a sufficient number of pages to form a volume have been printed. Individual specialists with whom the Academy or the various authors maintain exchanges receive those numbers dealing with their particular fields of interest. A reserve is set aside for future exchanges and a supply of each number is available for sale at a nominal price. Authors may obtain copies for their personal use at the prevailing rates for similar reprints.

When citing this series in bibliographies and in preparing abstracts, authors are requested to use the following preferred abbreviations: *Chicago A cad. Sci., Nat. Hist. Misc.*

H. K. Gloyd, Director